Name:

at1113exam: Expand, factor, and solve quadratics (v312)

1. Expand the following expression into standard form.

$$(9x + 2)^2$$

2. Expand the following expression into standard form.

$$(9x + 4)(9x - 4)$$

3. Expand the following expression into standard form.

$$(3x + 7)(9x + 5)$$

4. Solve the equation.

$$(3x - 2)(8x - 5) \;=\; 0$$

5. Factor the expression.

$$16x^2 - 49$$

6. Solve the equation with factoring by grouping.

$$15x^2 + 18x + 20x + 24 \;=\; 0$$

7. Factor the expression.

$$x^2 + 11x + 24$$

8. Solve the equation.

$$11x^2 - 56x + 43 \;=\; 4x^2 + 5x + 3$$